HYPOLIMNAS BOLINA L. (LEP.: NYMPHALIDAE): RECENT EVIDENCE OF STATUS OF SUBSPECIES BOLINA L. AND JACINTHA DRURY IN MALAYA

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PENINSULAR MALAYA has been the scene of invasions by two very different subspecies of *Hypolimnas bolina* over the past century and a half, overland from Thailand and Burma to the north (spp. *jacintha*) and over sea from the south (ssp. *bolina*). In Malaya the species inhabits gardens, plantations, forest edges and secondary jungle on the plains. The males of the two subspecies are somewhat similar and not unlike those of *H. missipus* L., deep purplish-blue with whitish discal patches on all wings, *jacintha* additionally possessing a series of postdiscal white spots. The females are very different from each other; *bolina* is a magnificent insect, bluish-black with white and orange patches, while *jacintha* is a dull dark-brown with submarginal white spots. It has been suggested that the latter may mimic females of *Euploea* species (Woodhouse, 1950; Corbet and Pendlebury, 1992). I note that for Thailand, Pinratana (1979) incorrectly refers to ssp. *bolina*; the coloured plate correctly depicting *jacintha* is mislabelled.

Corbet and Pendlebury (op. cit.) summarise the insect's history in Malaya – in the nineteenth century all specimens observed were of the continental form jacintha; towards the end of the century it became increasingly rare, then from about 1930 subspecies bolina from what is now Indonesia established itself and became fairly common; later, from about 1970, jacintha has partly re-established itself, and has interbred with f. bolina to produce hybrids difficult to classify.

During the two years I lived in Malaya from 1957 to 1959, except on one occasion, I did not encounter the species. However, I was residing in the Cameron Highlands at 5000 feet altitude. On 30.v.1959 I visited the mangrove swamps south of Sungei Selangor for the very local *Danaus affinis* Fab. (now a protected species in Malaya). During my short visit I saw several female *H. bolina bolina*, and was fortunate to notice a specimen laying eggs on flowering *Portulaca* which in places covered the embankments. Three eggs found later produced further females in August.

Recently I returned to Malaya and at Kaki Bukit on the Thailand border near Kangar I came across several specimens of the continental subspecies *jacintha*, all males. I failed to see it on the several visits made in January and April when living in Malaya. In January 1995, on leaving Kangar, I moved to Bentong, Pahang, where I found the species common, and both sexes were seen. All these were also of the continental subspecies, and there was no evidence of the presence of ssp. *bolina* or hybridisation. Bentong is almost in the same latitude as Sungei Selangor, but on the east side of the central mountain chain, Sungei Selangor being on the west coast.

Although there is a resemblance between *jacintha* females and some *Euploea* species, very noticeable in set specimens, I found no difficulty in recognising female *jacintha* in flight – the females of *bolina* do not appear to mimic any distasteful model.

My observation would seem to suggest that *jacintha* from the north is now the predominant subspecies as far south as latitude 3°N in Malaya, and that ssp. *bolina* has declined or disappeared to the north of this latitude. The fluctuating colonisation and decline of the two subspecies in Peninsular Malaya and Sumatra is interesting, and perhaps unique. Although best monitored by resident Lepidopterists, it is a phenomenon deserving of attention by visitors to the country which at present has a rational policy regarding collecting and studying insects, having some very rare species protected, to which have been added other species, some quite common, liable to persecution for commercial gain.

References

Corbet, A. & Pendlebury, H., 1992. The Butterflies of the Malay Peninsula. Malayan Nature Society.

Pinratana, A., 1979. Butterflies in Thailand. Vol. 3, Viratham Press.

Woodhouse, L., 1950. The Butterfly Fauna of Ceylon. Ceylon Government Press.

Records of Erebia butterflies (Lep.: Satyridae) from Europe, 1983-1993

While extracting information from my butterfly collection for the Mapping European Butterflies project (Kudrna, 1996. Mapping European Butterflies: Handbook for Recorders. *Oedippus* 12: 1-60.), I collated several records of European *Erebia* butterfly species collected during 1983-1993 that have not been reported previously in my records of this genus (Wakeham-Dawson, 1992, *Bull. Amateur Ent. Soc.* 51: 163-166; 1992, *Bull. Amateur Ent. Soc.* 51: 289-291; 1995, *Ent. Rec.* 107: 267-271; 1996, *Ent. Gaz.* 47: 247-251 and *in press*). These are listed in Table 1, with information relating to dates, locations, habitats and altitudes of capture. Identification was confirmed by examination of male genitalia using Higgins (1975, *The Classification of European Butterflies.* London). Nomenclature is based on Warren (1963, *Monograph of the Genus Erebia.* British Museum (N.H.)) and Higgins & Riley (1980, *A Field Guide to the Butterflies of Britain and Europe.* Collins).

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